

ABSTRACT OF THE DISCLOSURE

It is an object to provide a power circuit in which a space for providing a circuit to protect the power circuit can be reduced when a short circuit is generated on the secondary side of the transformer of the power circuit, and the size of the circuit can be decreased. A first coil (L1), a second coil (L2) and a third coil (L3) are provided on the primary side of a transformer (25) disposed on a power circuit (35). Moreover, a plurality of coils corresponding to the coils on the primary side is provided on the secondary side of the transformer (25). Furthermore, the primary side of the power circuit (35) is provided with a power switching unit (1) for controlling the input of a power to the transformer (25), a first integrating circuit (31) for integrating the voltage of the second coil (L2) and a second integrating circuit (32) for integrating the voltage of the third coil, and abnormality detecting means (13) for detecting the abnormality of the state of a voltage between the second coil (L2) and the third coil (L3) based on the output of the first integrating circuit (31) and that of the second integrating circuit (32). When the abnormality detecting means (13) detects the abnormality of the state of the voltage, the power switching unit (1) is brought into a non-conduction state so that the input of the power to the transformer (25) is stopped.